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FLOWCHART SYMBOLS
AND THEIR USAGE
IN INFORMATION
PROCESSING

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CATEGORY: SOFTWARE
SUBCATEGORY: DOCUMENTATION

Foreword

The Federal Information Processing Standards Publication Series of the National Bureau of Standards is the official publication relating to standards adopted and promulgated under the provisions of Public Law 89-306, and under Office of Management and Budget Circular A-86. The entire series constitutes the **FEDERAL INFORMATION PROCESSING STANDARDS REGISTER**.

The series is used to announce Federal Information Processing Standards, and to provide standards information of general interest and an index of relevant standards publications and specifications. Publications that announce adoption of standards provide the necessary policy, administrative, and guidance information for effective standards implementation and use. The technical specifications of the standard are usually attached to the publication, otherwise a reference source is cited.

Comments covering Federal Information Processing Standards and Publications are welcomed, and should be addressed to the Associate Director for ADP Standards, Institute for Computer Sciences and Technology, National Bureau of Standards, Washington, D.C. 20234. Such comments will be either considered by NBS or forwarded to the responsible activity as appropriate.

RICHARD W. ROBERTS, *Director*

Abstract

This publication establishes standard flowchart symbols and specifies their use in the preparation of flowcharts in documenting information processing systems. This standard applies to any Federal information processing operation where symbolic representation is desirable to document the sequence of operations and the flow of data and paperwork.

Key words: Computer programming; computers; data processing; Federal Information Processing Standards; flow charting; flowchart symbols; information processing; standards.

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**Federal Information
Processing Standards Publication 24**



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ANNOUNCING THE STANDARD FOR

**FLOWCHART SYMBOLS
AND THEIR USAGE IN INFORMATION PROCESSING**

Federal Information Processing Standards Publications are issued by the National Bureau of Standards under the direction of the Office of Management and Budget (OMB) in accordance with the provisions of Public Law 89-306 and OMB Circular No. A-86.

Name of Standard. Flowchart Symbols and Their Usage in Information Processing.

Category of Standard. Software Standard, Documentation.

Explanation. The purpose of this FIPS PUB is to establish standard flowchart symbols and to specify their use in the preparation of flowcharts in documenting information processing systems.

Approving Authority. Office of Management and Budget.

Maintenance Agency. Department of Commerce, National Bureau of Standards (Institute for Computer Sciences and Technology).

Cross Index. American National Standard X3.5-1970, Flowchart Symbols and Their Usage in Information Processing.

Applicability. This standard applies to any Federal information processing operation where symbolic representation is desirable to document the sequence of operations and the flow of data and paperwork.

Implementation Schedule. This standard becomes effective upon date of publication. All new documentation involving use of flowcharts will utilize this standard. Existing documentation does not need to be modified to comply with this standard. In procurements involving systems design and programming, this standard will be cited in the solicitation document.

Waiver Procedure. Agencies are permitted to waive the requirements of this FIPS PUB upon proper internal justification. These waivers need not be coordinated in advance with NBS. However, in order that NBS may be knowledgeable about the extent to which agencies find it necessary to deviate from the specifications of this standard in meeting their operational requirements, agencies are requested to provide NBS with the following information on each of the waivers:

- a. Relevant documentation considered by the head of the agency (or his assignee) in authorizing the waiver.
- b. Related to the waiver, a statement of any recommended action that NBS should take concerning future development or application of the standard.

Letters should be addressed to the Associate Director for ADP Standards, Institute for Computer Sciences and Technology, National Bureau of Standards, Washington, D.C. 20234.

Specifications. This standard adopts in whole American National Standard X3.5-1970, Flowchart Symbols and Their Usage in Information Processing.

Qualifications. Where the strict adherence to the width-length proportions of symbols specified in X3.5-1970 would create unwieldy sizes, or cramp the annotation associated with a symbol, the proportion specifications can be relaxed with care taken to maintain the distinctive shape of the symbol, or the annotation can be recorded outside the symbol using the annotation symbol.

Special Information. Arrangements are underway to make available a flowchart template that incorporates the provisions of this standard for Federal government agencies through the Federal Supply System. Details concerning these arrangements will be available at a later date.

Where to Obtain Copies of the Specifications of the Standard.

a. Federal Government activities should obtain copies from established sources within each agency. When there is no established source, purchase orders should be submitted to the General Services Administration, Specifications Activity, Printed Materials Supply Division, Building 197, Washington Navy Yard Annex, Washington, D.C. 20407. Refer to Federal Information Processing Standards Number (FIPS 24). (Price, 80 cents a copy.)

b. Others may obtain copies from the American National Standards Institute, 1430 Broadway, New York, New York 10018. Refer to American National Standard X3.5-1970, Flowchart Symbols and Their Usage in Information Processing. (Price \$3.75 a copy. Discounts are available on quantity orders. See ANSI catalog.)